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SHINJO TERUYA**(54) FE-CO MAGNETIC FILM AND MANUFACTURE THEREOF**

(57)Abstract:

PURPOSE: To contrive accomplishment of high permeability on a magnetic material by a method wherein a laminated structure, consisting of an Fe layer having 110 face as a lamination face, the FeCo alloy layer to be laminated on the Fe layer, and a Co layer to be laminated on the FeCo alloy layer having 101 face as the lamination face, is formed periodically.

CONSTITUTION: Fe and Co are alternately evaporated on a substrate using a vacuum evaporation method in such a manner that a formula (showing the relationship of Co evaporation layer thickness/(Fe evaporation layer thickness + Co evaporation layer thickness) ≤ 0.8 can be formed between the Co evaporation layer thickness and the Fe evaporation layer thickness formed by the previous stage. As Fe has a crystal growing property normally by having 110 face as a lamination face, the amorphous material such as glass, polyimide and the like, for example, can serve as a substrate. As crystal is easily grown on Co using 111 face as a lamination face, the thickness of evaporation layer of Co is set in such a manner that the above-mentioned relationship formula is formed between the evaporation layer thickness of Co and the evaporation layer thickness of Fe formed by the previous stage, and that crystal is grown on the entire Co with 101 face as a lamination face substantially.

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